The impact of nursing educational program on workers 'Perceived Severity toward occupational accidents at work environment

Nedaa Q. Tuoma, PhD [*]

Prof .*Wissam J. Qassim, PhD* [**]

- *** Academic Nurse, Diyala Health Directorate, Ministry of Health and Environment,**
  nedaa.ali2206p@conursing.uobaghdad.edu.iq
  ****Professor, Community Health Nursing Department, College of Nursing, University of Baghdad,**
  dr.wissamjk@conursing.uobaghdad.edu.iq.

The impact of nursing educational program on workers 'Perceived Severity toward occupational accidents at work environment

Nedaa Q. Tuoma, PhD [*]

Prof .*Wissam J. Qassim, PhD* [**]

Abstract

Background: According to the World Health Organization (WHO), an occupational accident is an unplanned event that often results in personal injury, damage to machinery, tools and equipment, and production interruption. **Materials and Method:** True Experimental study, using randomized control trail approach, is carried throughout the present study to determine the effect of nursing educational program on workers' perceived severity toward occupational accidents at workplace for the period of February 1th 2024 through January 1th 2025. **Results**: Findings of this study depict that there were statistically significant differences in perceived severity concept of the health belief model related to occupational accident and PPE use. **Conclusions**: This study concluded that health intervention based on HBM shows a change in workers' behaviors towards workplace hazards and the importance of using PPE in preventing them. **Recommendation**: The study recommends the need to conduct future studies and activate the role of the health and safety program in the work environment in order to preserve human health and infrastructure.

المستخلص:

الخلفية: وفقًا لمنظمة الصحة العالمية(WHO) ، فإن الحادث المهني هو حدث غير مخطط له غالبًا ما يؤدي إلى إصابة شخصية وتلف الآلات والأدوات والمعدات وانقطاع الإنتاج. المواد والطريقة: صحيح أجريت دراسة تجريبية باستخدام نهج مسار التحكم العشوائي طوال الدراسة الحالية لتحديد تأثير برنامج التعليم التمريضي على شدة إدراك العمال اتجاه الحوادث المهنية في مكان العمل للفترة من 1 فبراير 2024 حتى 1 يناير 2025. النتائج: تصور نتائج هذه الدراسة وجود فروق ذات دلالة إحصائية في مفهوم الشدة المدركة لنموذج الاعتقاد الصحي المتعلق بالحوادث المهنية واستخدام معدات الوقاية الشخصية. الاستنتاجات: خلصت هذه الدراسة إلى أن التدخل الصحي القائم على نموذج إدارة الصحة والسلامة المهنية يُظهر تغييرًا في سلوكيات العمال تجاه مخاطر مكان العمل

وأهمية استخدام معدات الوقاية الشخصية في منعها. التوصيات: توصي الدراسة بضرورة إجراء دراسات مستقبلية وتفعيل دور برنامج الصحة والسلامة في بيئة العمل من أجل الحفاظ على صحة الإنسان والبنية التحتية.

Key-words: **Perceived severity, occupational accident.**

INTRODUCTION

Occupational accidents are unplanned events that often result in personal injury, damage to machinery, tools and equipment, and production interruptions. Occupational accidents affect the lives of employees, organizations and society. Although in many cases they are transient, lasting a few weeks, in other cases they are permanent. Severe injuries affect the social and economic status of employees and their families(1). Occupational injuries differ from occupational diseases in that they are caused by acute exposure in the workplace to physical agents such as mechanical energy, electricity, chemicals and ionizing radiation, or by a sudden lack of essential agents such as oxygen or heat. Examples of events that can lead to worker injury include motor vehicle accidents, assaults, falls, falling into parts of machinery, being struck by tools or objects, and submersion. The resulting injuries include fractures, cuts, scratches, burns, amputations, poisoning and damage to internal organs(2). Electrical hazards pose a serious threat to worker safety. Many workers are unaware of the potential electrical hazards present in their work environment, putting them at greater risk for electrocution and electrical-related accidents. Unsafe equipment, unsafe work, and working with live electrical circuits can lead to electrical accidents, injuries, and even death (3). Reducing exposure to hazards that cause serious injuries and illnesses in the workplace. These injuries and illnesses may result from contact with chemicals, radiation, physical, electrical, mechanical, or other hazards in the workplace by using personal protective equipment, “PPE,” which may include gloves, safety glasses, shoes, earplugs or shields, hard hats, respirators, or full-body suits, jackets, and suits (4). Workers in developing countries face as many difficulties particularly occupational health hazards as their counterparts in industrialized nations. The Health Belief Model (HBM) encourage workers to use personal Protective Equipment (RPE) that could protect them from risks of environmental health and work-safety caused by workplace hazards(5) The HBM, is a health behavior change and psychological model has led to the development of an environmentally healthy working place (6). six aspects of perception in HBM:

perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy were applied to measure the behavior change of workers(7).Encouraging workers to use personal protective equipment is an important safeguard in the work environment in many organizations. PPE is very effective in reducing occupational injuries, accidents and other hazards that also lead to significant losses in manpower and financial losses (8). The definition of the concepts of the HBM as Perceived susceptibility is the first concept of this model, and it defines an individual's beliefs and behaviors about the likelihood of developing a particular health condition such as an occupational injury (9). Perceived severity refers to a person's beliefs about how serious the condition is and its consequences, and perceived benefits refer to a person's perception of the effectiveness of various measures available to reduce the risk of the accident or injuries' such as PPE using through work(10). While Health-related behaviors are also a function of perceived barriers to action and refer to an individual's assessment of the barriers to behavior change. The HBM assumes that cues or motivators are necessary to motivate engagement in health-promoting behaviors. Cues to action can be internal or external (11). Self-efficacy is the strength of an individual's belief in one's own ability to respond to novel or difficult situations and to deal with any associated obstacles or setbacks (12).

METHODS

Research Design:

Experimental study, using two group pretest posttest design was adapted.

Independent variable: In this study independent variable is health beliefs model (perceived severity)

Dependent variables: In this study dependent variable is worker behaviors.

Research Settings:

The study was conducted on workers' at Diyala State Company in Baqubah City.

Study sampling:

Probability, simple random sample of (100) workers' who are at attending Diyala state company in Baqubah City. The sample is selected randomly and assigned to the experimental and control groups of (50) worker each who are equally distributed from each factory.

Data Collection

Self-report questionnaires are constructed for the purpose of the study.Such instruments are presented as follows:

Part I: Demographic Information

This part consists of the demographic information of age, gender , marital status, level of educational, years of employment, and monthly income of participants.

Part2: measuring the behaviors of workers about occupational accident using the perceived severity concepts of the HBM. The Perceived Severity Scale that comprised of (7) item that measure workers Perceived Severity of occupational accident. This scale is a 5-point Likert type scale is measured as strongly agree (5), agree (4), neutral (3), disagree (2), strongly disagree (1).

Validity

Content validity of the study instrument is obtained through panel of (10) Experts These experts are (3) faculty members at the College of Nursing in the University of Baghdad, (1) faculty member at the College of Medicine University of Baghdad, (2) faculty members at the College of Nursing in the University of Karbala and (4) physicians at the Ministry of Health. They are presented with copy of the intervention program and the study instruments and asked to value their content clarity and adequacy. Their responses suggested that the intervention program and the study instruments are clear and adequate.

Reliability

Test-retest reliability is employed for the determination of the study instrument stability. Pearson correlation coefficient is computed on responses of (10) workers at factory company. Findings of this computation indicate that the correlation coefficient is approving that the instruments are highly reliable measures for the phenomenon underlying the present study

Data Collection

Data are collected through the use of the study instruments and the application of the pretest-posttest approach as means of data collection. For the period of july 4th 2024 through October 4th 2024.

Data Analysis Techniques:

The IBM SPSS 23.0 program was used for all the analyses that follow. Numbers and percentages (No. and %) were used to categorize the variables, while the mean and standard deviation were used to characterize the continuous variables (mean and SD).

RESULTS

Table (1) presents the socio-demographic characteristics of workers in the study and control groups. The study group consisted of 68% males and 32% females, while the control group had a higher proportion of males (78%) and fewer females (22%).

Both groups had a similar age distribution, with most participants in the 45-54 age range; the study group had a mean age of 46.5 years (SD = 8.6), slightly older than the control group's mean age of 45.5 years (SD = 7.9). Most participants in both groups were married (70% in the study group and 72% in the control group), with similar proportions of unmarried individuals. The study group had a higher percentage of individuals with a bachelor's degree (34%) compared to the control group (14%), while the control group had more individuals with secondary education (46%) than the study group (30%). The distribution of years of experience was similar, with many having 23 years or more. Monthly income was slightly higher in the study group (M = 957,000 IQD, SD = 351,000) compared to the control group (M = 928,000 IQD, SD = 573,000), with the control group having a larger percentage of workers earning between 601,000 and 900,000 IQD.

Table (1): Distribution of the Workers according to their Socio-demographic Characteristics

No.	Characteristics		Study group		Control group	
			f	%	f	%
1	**Sex**	Female	16	32	11	22

		Male	34	68	39	78
		Total	***50***	***100***	***50***	***100***
2	**Age (Years)**	25 – 34	5	10	5	10
		35 – 44	10	20	13	26
		45 – 54	28	56	29	58
		55 and more	7	14	3	6
		Total	***50***	***100***	***50***	***100***
		M ± SD	***46.5 ± 8.6***		***45.5 ± 7.9***	
3	**Marital status**	Unmarried	6	12	7	14
		Married	35	70	36	72
		Divorced	4	8	3	6
		Widowed/er	5	10	4	8
		Total	***50***	***100***	***50***	***100***
4	**Level of education**	Primary school	6	12	4	8
		Intermediate school	2	4	5	10
		Secondary school	15	30	23	46
		Diploma	10	20	11	22
		Bachelor	17	34	7	14
		Total	***50***	***100***	***50***	***100***
5	**Years of experience**	5 – 10	8	16	9	18
		11 – 16	3	6	4	8
		17 – 22	11	22	11	22
		23 and more	28	56	26	52
		Total	***50***	***100***	***50***	***100***

		M ± SD	***21.6 ± 8.2***		***21.9 ± 9.2***	
6	**Monthly income (Iraqi Dinar)**	300000 – 600000	8	16	7	14
		601000 – 900000	16	32	24	48
		901000 – 1200000	13	26	14	28
		1201000 – 1500000	10	20	4	8
		1501000 and more	3	6	1	2
		Total	***50***	***100***	***50***	***100***
		M ± SD	***957000 ± 351000***		***928000 ± 573000***	
		300000 – 600000	8	16	7	14

Table (2) displays the changes in perceived severity for occupational accident and using PPE in the study and control groups. In the study group, perceived severity significantly increased from the pre-test to post-test I and II, with mean scores rising from 18.80 (SD = 2.955) to 27.22 (SD = 1.877) during posttest I and 28.58 (SD= 1.864) during posttest II. The proportion of workers perceiving high severity grew substantially from 0% pre-tests to 82% and 94% at post-test I and II, respectively.

Conversely, the control group showed little change in perceived severity, with mean scores remaining relatively stable at 17.28 (SD = 4.056) and 18.58 (SD = 4.286) across assessments. This indicates that the HBM-based intervention had a significant impact on increasing perceived severity among workers in the study group, whereas the control group did not experience notable changes.

Table (2): Evaluation of Overall *Perceived Severity* for Using Personal Protective Equipment among Workers in the Study and Control Groups

Perceived Severity	**Study Group**		
	Pre-test	**Post-test I**	**Post-test II**

	F	%	M	SD	f	%	M	SD	F	%	M	SD
Low	12	24			0	0			0	0		
Moderate	38	76			9	18			3	6		
High	0	0			41	82			47	94		

Perceived Severity	**Control Group**											
	Pre-test				**Post-test I**				**Post-test II**			
	F	**%**	**M**	**SD**	**f**	**%**	**M**	**SD**	**F**	**%**	**M**	**SD**
Low	21	42	**17.28**	**4.056**	13	26	**17.96**	**2.821**	5	10	**18.58**	**4.286**
Moderate	29	58			34	68			35	70		
High	0	0			3	6			10	20		
Total	***50***	***100***			***50***	***100***			***50***	***100***		
Total	***50***	***100***			***50***	***100***			***50***	***100***		

f: Frequency, %: Percentage, M: Mean of total score, SD Standard deviation of total score Low= 7 – 16.33, Moderate= 16.34 – 25.66, High= 25.67 – 35

Table (3) indicates significantly increased workers' perceived severity in the study group, with mean scores rising from moderate to high across all assessed items. In contrast, the control group showed little change in perceived severity, with scores remaining stable at moderate levels. This demonstrates the effectiveness of the intervention in enhancing workers' awareness of severity regarding work risks.

Table (3): Evaluation of *Perceived Severity* for Occupational accident and using PPE among Workers in the Study and Control Groups

List	**Perceived Severity**	**Study Group (N=50)**					
		Pre-test		**Post-test I**		**Post-test II**	
		M	**Eval.**	**M**	**Eval.**	**M**	**Eval.**

1	The thought of developing an occupational illness deeply concerns me	2.38	M	3.88	H	4.10	H
2	If I developed an occupational illness, my career would be in danger	2.96	M	4.10	H	4.36	H
3	Problems I would experience from an occupational illness would last a lifetime	2.70	M	3.98	H	4.12	H
4	An occupational illness will not lead to permanent changes in my health	2.98	M	4.00	H	4.18	H
5	My financial security would be endangered if I developed an occupational illness	2.80	M	3.92	H	4.14	H
6	I believe I could die prematurely if I developed an occupational illness	2.64	M	3.70	H	3.82	H
7	I am afraid to even think about getting an occupational illness	2.34	M	3.56	M	3.86	H

List	**Perceived Severity**	**Control Group (N=50)**					
		Pre-test		**Post-test I**		**Post-test II**	
		M	**Eval.**	**M**	**Eval.**	**M**	**Eval.**
1	The thought of developing an occupational illness deeply concerns me	2.30	L	2.29	L	2.30	L
2	If I developed an occupational illness, my career would be in danger	2.79	M	2.96	M	3.11	M
3	Problems I would experience from an occupational illness would last a lifetime	2.98	M	2.70	M	3.01	M
4	An occupational illness will not lead to permanent changes in my health	2.89	M	2.98	M	3.04	M
5	My financial security would be endangered if I developed an occupational illness	2.89	M	2.80	M	2.95	M
6	I believe I could die prematurely if I developed an occupational illness	2.60	M	2.64	M	2.99	M

7	I am afraid to even think about getting an occupational illness	2.33	L	2.30	L	2.77	M

*M: Mean, Eval: Evaluation, **L**: Low= 1 – 2.33, **M**: Moderate= 2.34– 3.66, **H**: High= 3.67 – 5*

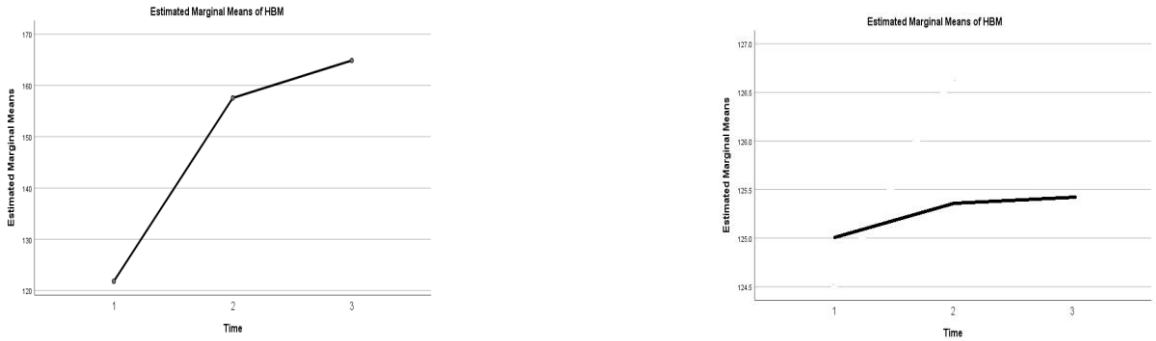

Figure (1): Estimated Marginal Mean for HBM

Study and Control Groups .This figure exhibits the noticeable increasing of workers' behavior over the three times among the study group while among the control group there is no significant change in their behavior.

DISCUSSION

Table (1) shows the results participants are evenly distributed presents the socio-demographic characteristics of workers in the study and control groups. The study group consisted of 68% males and 32% females, while the control group had a higher proportion of males (78%) and fewer females (22%). Most participants in both groups were married (70% in the study group and 72% in the control group), with similar proportions of unmarried individuals. The study group had a higher percentage of individuals with a bachelor's degree (34%) compared to the control group (14%), while the control group had more individuals with secondary education (46%), than the study group (30%). This result in this study is consistent with (263) who found that most of the study participants were male (79%). A significant portion of participants own their married (63%).then the majority of study participant have educational level were Bachelor's (44%).

Both groups had a similar age distribution, with most participants in the 45-54 age range; the study group had a mean age of 46.5 years (SD = 8.6), slightly older than the control group's mean age of 45.5 years (SD = 7.9). . Both groups were predominantly employed in permanent positions (92% in the study group

and 90% in the control group). The distribution of years of experience was similar, with many having 23 years or more, Monthly income was slightly higher in the study group (M = 957,000 IQD, SD = 351,000) compared to the control group (M = 928,000 IQD, SD = 573,000), with the control group having a larger percentage of workers earning between 601,000 and 900,000 IQD.. This result in our study is consistent with (13) who found that most of the study participants were age 50 and more (42.9%). A significant portion of participants work permanent positions are Fixed. Work experiences more than 10 years (48.2) but disagree wherein educational level was their most Illiterate (67.9).

Table (2).Shows changes in perceived severity of occupational accidents and their prevention using PPE in the study and control groups. In the study group, perceived severity increased significantly from the pre-test to post-test I and II, with mean scores increasing from 18.80 (SD = 2.955) to 27.22 (SD = 1.877) during the t post-test I and 28.58 (SD = 1.864) during the post-test II. The proportion of workers who felt high severity increased significantly from 0% in the pre- test to 82% and 94% in the post test I and II respectively. In contrast, the control group showed little change in perceived severity, with mean scores remaining relatively stable at 17.28 (SD = 4.056) and 18.58 (SD = 4.286) across assessments. This suggests that the intervention based on the health belief model had a significant effect on increasing symptom severity among workers in the study group, while the control group experienced no significant changes. This finding in this study is consistent with (14) who found a statistically significant difference between the study and control groups.

The table (3) indicates significantly increased workers' perceived severity in the study group, with mean scores rising from moderate to high across all assessed items. In contrast, the control group showed little change in perceived severity, with scores remaining stable at moderate levels. This demonstrates the effectiveness of the intervention in enhancing workers' awareness of severity regarding work risks. our result is agree with the results of the study by Movahed et al. (15) who showed a change in the scores in perceived severity before education with a mean ± SD of 9.52 ± 3.31, 14.2 ± 2.77 at $p < 0.001$ respectively in the study group. While they showed a slight change in perceived severity before and after education with a mean ± SD of 9.48 ± 2.82, 10.04 ± 3.22 at $p < 0.08$ respectively in the control group

CONCLUSIONS

An intervention based on the health belief model improved workers' awareness of occupational accidents and their prevention using PPE.

RECOMMENDATIONS

The study recommends the need to conduct future studies based on the HBM model on a large number of workers in Iraq with the aim of changing people's behavior towards workplace hazards and the importance of using PPE during work.

REFERENCES

1. Qassim, W. J. (2009). Effectiveness of occupational Health Education Program upon Workers' Knowledge Towards Occupational Health Dimensions. Iraqi National Journal of Nursing Specialties, 22(1), 83-88.
2. Hamad, Z., & Qassim, W. (2019). Effectiveness of an Educational Program in Enhancing Nurses' Knowledge about Occupational Health Hazards. Iraqi National Journal of Nursing Specialties, 32(2), 11-18
3. Aziz, G. A., & Kamal, A. (2018). Impact of Work Environment upon Housekeeping Services Staff's Health Status at Medical City in Baghdad City. Iraqi National Journal of Nursing Specialties, 31(2), 13-22
4. Kadhim, J. K., & Abd al-Wahid, H. S. Evaluation of psychological work environment's effect on workers' productivity in Baghdad City: Iraqi National Journal of Nursing Specialties. 2014; Vol. 27 (1), 66-75.
5. Abdul-Wahhab, Salah & Mohammed, Widad & Nazar, Salah. (2019). Effectiveness of Instructional Program on Nurses' Knowledge about Prevention of Needle Stick Injuries at Imam Al Hussein Medical City in Holy Karbala Governorate. 82-93. 10.9790/1959-0605058293
6. Younis, N. M., & Naji, A. B. (2021). Assessing the effect of an educational intervention based on health belief model on preventive behaviors of addiction. Pakistan J Med Health Sci, 15(3), 813-7.
7. Kader, M. M., & Faraj, R. K. (2023). Health Belief Model Efficacy on improving hypertension control among old age at Kirkuk City, Iraq: A Randomized Controlled Trial. Rawal Medical Journal, 48(3), 770-770.
8. Wright, T., Adhikari, A., Yin, J., Vogel, R., Smallwood, S., & Shah, G. (2019). Issue of compliance with use of personal protective equipment among wastewater workers across the southeast region of the United States. International journal of environmental research and public health, 16(11), 2009.
9. Karim, N., & Naji, A. (2018). Health belief model and its relation to age and body mass index considering colorectal examinations among graduate students. *Iraqi National Journal of Nursing Specialties*, *31*(2), 129-138.
10. Handhal, S. Mahmood and Mohammed, Z. Jasim (2024). The effect of an educational intervention based on the health belief model on the health beliefs of female university students regarding AIDS. Nursing and Midwifery Studies, 13(2), 76-84. doi: 10.48307/nms.2024.435968.1335

11. Niama, A. M., & Naji, A. B. (2022). Efficacy of the health belief model on older adults' physical activity at a geriatric care home in Baghdad city. Int J Health Sci, 6(S1), 6178-86.

12. Ismael, H. K., & Mohammed Noori, A. K. (2019). Efficacy of the Health Belief Model in Enhancing the Oral Health of Female Middle School Students. *Indian Journal of Public Health Research & Development*, *10*(9).

13. AbouZeid, O. N., Sayed, S. M., & Hassan, Z. M. (2022). Effect of an Educational Program on Utilization of Personal Protective Equipment among Municipal Waste Workers at Minia City, Egypt. *Assiut Scientific Nursing Journal*, *10*(31), 123-138.

14. Ramlan, W., Saliluddin, S. M., Huda, B. Z., Ismail, S., & Shahar, H. K. (2020). Health Belief Model-Based Intervention On Knowledge And Practice Of Standard Precautions Among Primary Healthcare Workers In A State Of Malaysia. *Southeast Asian Journal of Tropical Medicine and Public Health*, *51*(6), 959-973.

15. Movahed, E., Rezaee Moradali, M., Saeed Jadgal, M., Zareipour, M., & Tasouji Azari, M. (2022). Effectiveness of the application of an educational program based on the Health Belief Model (HBM) in Adopting. *Investigacion y educacion en enfermeria*, *40*(3), e11. https://doi.org/10.17533/udea.iee.v40n3e11

1. Naji, A. M. N. A. B. (2022). Using the health belief model to understand physical activity behavior among older adult at geriatric care home. *Pakistan Journal of Medical & Health Sciences*, *16*(03), 873-873.

4- Ali, R. H., & Al-Shatari, S. A. E. (2023). The Impact of using the Internet and Social Media on Sleep in a group of Secondary School Students from Baghdad. *Al-Kindy College Medical Journal*, *19*(2), 168-173.

7-

9- Ahmed, M. S., Mohammed, Z. J., & Kareem, R. F. (2023). Efficacy of Health Belief Model-Based Intervention for Enhancing Nursing Staff Beliefs Regarding Osteoporosis Prevention at Primary Health Care Centers. *Pakistan Heart Journal*, *56*(2), 372-377.

10- Hlail, H. H., & KareemFaraj, R. (2019). Efficacy of the Health Belief Model and Multi-Dimensional Locus of Control Theory-Led of Influenza Vaccination among

High School Students in Al-Nasiriyah City. *Indian Journal of Public Health Research & Development*, *10*(10).

11- Naji, A. B., & Baktash, M. Q. (2019). Efficacy of the health belief model in enhancing weight loss behaviors to prevent stroke among overweight and obese geriatrics homes residents in Baghdad City. *Kufa Journal for Nursing Sciences*, *9*(2), 51-58.

13- Abbas, H. K., & Naji, A. B. (2021). Women's Readiness to Conduct Pap Smear Test at Primary Health Care Centers in Baghdad City: The Health Belief Model as A Theoretical Framework. *Medico-Legal Update*, *21*(2).

14-

15- Raa'd K, F. (2022). Effectiveness of the health action process approach on promoting the health behaviors of male high school students in Al-Rusafa district. *Iraqi National Journal of Nursing Specialties*, *35*(1).

16- Wang, Y., Wu, A. M., & Lau, J. T. (2016). The health belief model and number of peers with internet addiction as inter-related factors of Internet addiction among secondary school students in Hong Kong. *BMC Public Health*, *16*, 1-13.

17- Salih, F., & Noori, A. (2021). Effectiveness of an educational program on knowledge of high school students about substance abuse in Kirkuk City. *Iraqi National Journal of Nursing Specialties*, *34*(1), 95-102.

18- Maheri, A., Tol, A., & Sadeghi, R. (2017). Assessing the effect of an educational intervention program based on Health Belief Model on preventive behaviors of internet addiction. *Journal of education and health promotion*, *6*(1), 63.

19- Khoshgoftar, M., Mazaheri, M. A., & Tarahi, M. J. (2019). The effect of educational intervention based on health belief model to decrease and prevent mobile phone addiction among female high school students in Iran. *International Journal of Pediatrics-Mashhad*, *7*(10), 10175-+.

20- Tsai, F. J., Hu, Y. J., Chen, C. Y., Tseng, C. C., Yeh, G. L., & Cheng, J. F. (2021). Using the health belief model to explore nursing students' relationships between COVID-19 knowledge, health beliefs, cues to action, self-efficacy, and behavioral intention: A cross-sectional survey study. *Medicine*, *100*(11), e25210.